Abstract

The improved bandwidth provisioning solution of the present invention enables the provision of bandwidth on demand by dynamically establishing and terminating one or more dynamic virtual circuits (SVCs) **(137)** to supplement a subscriber's default broadband connection. The improved bandwidth provisioning solution includes a client-side application **(107)** residing on the subscriber's data processing system **(105)** and a connection-management application **(142)** residing on a proxy signaling server **(140)**. The client-side application **(107)** transmits a subscriber's request for a bandwidth-on-demand session to the connection-management application **(142)**, which communicates with an asynchronous transfer mode (ATM) edge device **(120)** using User Network Interface (UNI) signaling to initiate the one or more VCs **(137)**. When the subscriber no longer desires the additional bandwidth, the supplemental VCs **(137)** may be terminated.